In the Claims:

1. (Currently amended): A process for carrying out the water-gas shift reaction, comprising employing a low-pyrophoricity water-gas shift reaction catalyst; wherein the low-pyrophoricity water-gas shift reaction catalyst comprises a solid high heat capacity particulate support selected from the group consisting of silica, zeolites, zirconia, zinc oxide and alumina, wherein the high heat capacity particulate support is impregnated with:

   at least one
   (i) 0.5-35% by weight of a reducible metal oxide selected from the group consisting of one or more of the oxides of Cr, V, Mo, Nd, Pr, Fe, Mn, or Ce; and
   and
   (ii) a catalytic agent selected from the group consisting of Pt, Pd, Cu, Rh, or Au.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended): The process of claim 1, wherein the particulate support is a high strength support in a durable and rigid form having a crush strength greater than 10 lbs/in^2.

5. (Original): The process of claim 4, wherein the particulate support is activated alumina.

6. (Original): The process of claim 5, wherein the activated alumina has a BET effective surface area of at least 10 m^2/g.

7. (Cancelled)

8. (Currently amended): The process of claim 1 ~~7~~, wherein the reducible metal oxide comprises one or more of the oxides of Ce, Cr, ~~Fe,~~ or Mn.

9. (Original): The process of claim 1, wherein the reducible metal oxide consists of the oxides of Ce.

10. (Original): The process of claim 1, wherein the catalytic agent comprises one or more of Pt, Pd, Cu, Fe, Rh, or Au or an oxide thereof.

11. (Original): The process of claim 10, wherein the catalytic agent is Cu or an oxide thereof.

12. (Original): The process of claim 11, wherein the high heat capacity support comprises alumina particles with a mesh size of 12 or greater.

13. (Currently Amended): The process of claim 12, wherein the reducible metal oxide consists of the ~~the~~ oxides of Cr and Ce.

14. (Original): The process of claim 12, wherein the reducible metal oxide consists of the oxides of Cr.

15. (Original): The process of claim 12, wherein the reducible metal oxide consists of the oxides of Ce.

16. (Original): The process of claim 11, wherein copper or an oxide thereof is in the range of 4-20% by weight, calculated as CuO.

17. (Original): The process of claim 10, wherein the catalytic agent is Pt or an oxide thereof.

18. (Original): The process of claim 17, wherein the particulate support comprises alumina particles with a mesh size of 12 or greater.

19. (Original): The process of claim 18, wherein the reducible metal oxide consists of the oxides of Ce.

20. (Currently Amended): The process of claim 1, wherein the low-pyrophoricity water-gas shift reaction catalyst comprises (i) alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g, (ii) 0.5 ~~up~~ to 25% by weight of an oxide

of Ce, calculated as CeO_2, impregnated in the support particles, and (iii) between 4 and 14% by weight catalytic agent wherein the catalytic agent is Cu or an oxide thereof, calculated as CuO; and

wherein the process for carrying out the water-gas shift reaction comprises the steps of:

a) providing an input gas stream comprising carbon monoxide and water vapor;

b) contacting the input gas stream with the low-pyrophoricity water-gas shift reaction catalyst; and

c) catalyzing the water-gas shift reaction with the low-pyrophoricity water-gas shift reaction catalyst;

wherein the input gas stream includes:

(i) between about 1% by volume and about 10% by volume CO,

(ii) at least 10% by volume hydrogen, and

(iii) at least 10% by volume H_2O; and

wherein the input gas stream is characterized by a space velocity and wherein the space velocity is at least 500 hr^{-1} VHSV.

21. (Currently Amended): The process of claim 1, wherein the low-pyrophoricity water-gas shift reaction catalyst comprises (i) alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g, (ii) <u>0.5</u> ~~up~~ to 15% by weight of an oxide of chromium, calculated as Cr_2O_3, impregnated in the support particles; and (iii) between 4 and 14% by weight catalytic agent, wherein the catalytic agent is copper or an oxide thereof, calculated as CuO; and

wherein the process for carrying out the water-gas shift reaction comprises the steps of:

a) providing an input gas stream comprising carbon monoxide and water vapor;

b) contacting the input gas stream with the low-pyrophoricity water-gas shift reaction catalyst; and

c) catalyzing the water-gas shift reaction with the low-pyrophoricity water-gas shift reaction catalyst;

wherein the input gas stream includes:

(i) between about 1% by volume and about 10% by volume CO,

(ii) at least 10% by volume hydrogen, and

(iii) at least 10% by volume H_2O; and

wherein the input gas stream is characterized by a space velocity and wherein the space velocity is at least 500 hr^{-1} VHSV.

22. (Currently Amended): The process of claim 1, wherein the low-pyrophoricity water-gas shift reaction catalyst comprises (i) alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g, (ii) up to 25% by weight of an oxide of cerium, calculated as CeO_2 impregnated in the support particles; (iii) up to 10% by weight of an oxide of chromium, calculated as Cr_2O_3, impregnated in the support particles; <u>wherein the combined concentration of the oxides of cerium and chromium is between 0.5 to 35% by weight;</u> and (iv) between 4 and 14% by weight catalytic agent, wherein the catalytic agent is copper or an oxide thereof, calculated as CuO; and

wherein the process for carrying out the water-gas shift reaction comprises the steps of:

a) providing an input gas stream comprising carbon monoxide and water vapor;

b) contacting the input gas stream with the low-pyrophoricity water-gas shift reaction catalyst; and

c) catalyzing the water-gas shift reaction with the low-pyrophoricity water-gas shift reaction catalyst;

wherein the input gas stream includes:

(i) between about 1% by volume and about 10% by volume CO,

(ii) at least 10% by volume hydrogen, and

(iii) at least 10% by volume H_2O; and

wherein the input gas stream is characterized by a space velocity and wherein the space velocity is at least 500 hr^{-1} VHSV.

23. (Currently Amended): The process of claim 1, wherein the catalyst comprises (i) alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g, (ii) <u>0.5</u> ~~up~~ to 25% by weight of an oxide of cerium, calculated as CeO_2, impregnated in the alumina support particles; and (iii) between 0.1 and 1.0% by weight of a catalytic agent wherein the catalytic agent is Pt or an oxide thereof, calculated as Pt;

wherein the process for carrying out the water-gas shift reaction comprises the steps of:

a) providing an input gas stream comprising carbon monoxide and water vapor;

b) contacting the input gas stream with the low-pyrophoricity water-gas shift reaction catalyst; and

c) catalyzing the water-gas shift reaction with the low-pyrophoricity water-gas shift reaction catalyst;

wherein the input gas stream includes:

(i) between about 0.1% by volume and about 5% by volume CO,

(ii) at least 10% by volume hydrogen, and

(iii) at least 10% by volume H_2O; wherein the input gas stream is characterized by a space velocity; and

wherein the space velocity is at least 500 hr^{-1} VHSV.

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Claims 24-41 (withdrawn)

42. (New): A process for carrying out the water-gas shift reaction, comprising employing a low-pyrophoricity water-gas shift reaction catalyst; wherein the low-pyrophoricity water-gas shift reaction catalyst comprises alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g impregnated with:

(i) 0.5 to 25% by weight of an oxide of Ce, calculated as CeO_2, impregnated in the support particles, and

(ii) between 4 and 14% by weight catalytic agent wherein the catalytic agent is Cu or an oxide thereof, calculated as CuO.

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43. (New): A process for carrying out the water-gas shift reaction, comprising employing a low-pyrophoricity water-gas shift reaction catalyst; wherein the low-pyrophoricity water-gas shift reaction catalyst comprises alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g impregnated with:

(i) 0.5 to 25% by weight of an oxide of cerium, calculated as CeO_2 impregnated in the support particles;

Sub B1

(ii) 0.5 to 10% by weight of an oxide of chromium, calculated as Cr_2O_3, impregnated in the support particles; wherein the combined concentration of the oxides of cerium and chromium is between 0.5 to 35% by weight; and

(iii) between 4 and 14% by weight catalytic agent, wherein the catalytic agent is copper or an oxide thereof, calculated as CuO.

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44. (New): A process for carrying out the water-gas shift reaction, comprising employing a low-pyrophoricity water-gas shift reaction catalyst; wherein the low-pyrophoricity water-gas shift reaction catalyst comprises alumina support particles with a mesh size of 12 or greater and a BET surface area of at least 10 m^2/g impregnated with:

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(i) 0.5 to 25% by weight of an oxide of cerium, calculated as CeO_2; and

(ii) between 0.1 and 1.0% by weight of Pt or an oxide thereof, calculated as Pt.